

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application Serial No.: 10/808,549  
Filed: 3/25/04  
For: MIMO Dynamic PSD Allocation for DSL Networks  
Confirmation No.: 4908

Commissioner for Patents  
Washington, D.C. 20231

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST**  
**(REVOCATION OF PRIOR POWERS)**

As assignee of record of each of the patent applications listed in the table of attachment A,

**REVOCATION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

**NEW POWER OF ATTORNEY**

the following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

**24504**

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

**Daniel R. McClure, Reg. No. 38,962**  
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770-933-9500

**ASSIGNEE OF ENTIRE INTEREST**

**CONEXANT SYSTEMS, INC.**

100 Schultz Drive  
Red Bank, New Jersey 07701

**ASSIGNEE CERTIFICATION**

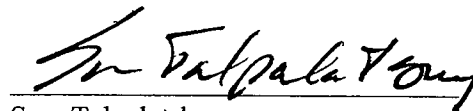
The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same.

Each of the patent applications listed in Attachment A is owned by Conexant Systems, Inc., by operation of law, express written assignment, or both. With regard to the recordation of written assignment documents, some of the patent applications listed in Attachment A do not yet have Conexant Systems, Inc.'s ownership interests officially recorded with the assignment branch of the U.S. Patent & Trademark Office. By way of further explanation, the corporate entity of GlobespanVirata, Inc. changed its name to Conexant, Inc. (a corporate affiliate of Conexant Systems, Inc.), and this name change is reflected in a certificate of name change, filed with the Delaware Secretary of State on May 28, 2004. Further, the corporate entity of Conexant, Inc. is in the process of winding down, and the ownership of patent applications has been conveyed to Conexant Systems, Inc. Written assignment documents reflecting this conveyance will be recorded with the U.S. Patent & Trademark Office in due course.

In my capacity of Chief IP Counsel for Conexant Systems, Inc., I am authorized to sign this document, and otherwise act on its behalf in connection with the management and handling of all of the patent applications listed in Attachment A.

Date: \_\_\_\_\_

9-22-06



Sam Talpalatsky  
Chief IP Counsel

# Attachment A

No.	Serial No	Conexant No.	Application Title	Filing Date	Assignment (Reel/Frame)
1		05CXT0095DL	Techniques to Resolve SNR-Margin Difference between Fast and Interleave Channels under Colored Noise Condition for DMT-Based DSL System	8/31/2006	Not yet Recorded in the USPTO
2		05CXT0110DL	Design of Minimum Power Leakage Windowing for VDSL Systems Via Least Square Method	8/31/2006	Not yet Recorded in the USPTO
3	11/315,372	05CXT0158DL	A New Bit-Loading Algorithm for a DMT Receiver		17368/0134
4	10/063,384	GV104	A System for Switching ATM Cells	4/17/2002	Not yet Recorded in the USPTO
5	10/254,970	GV106	Voice/Tone Discriminator	9/26/2002	13336/0576
6	10/138,700	GV112	System and Method for Distributed Processing of Packet Data Containing Audio Information	5/6/2002	13119/0883
7	10/097,598	GV119	Sticky Condition Bit for Efficient Processing of Program Flow Changes Sticky Condition Bit for Efficient Processing of Program Flow Changes	3/15/2002	12714/0832
8	10/259,432	GV132	Jitter Buffer for Audio Encapsulated in RTP Packets	9/30/2002	13560/0287
9	10/050,128	GV135	Varying an Echo Canceller Filter Length Based on Data Rate	1/18/2002	12499/0607
10	10/757,587	GV139	Minimum Processor Instruction for Implementing Weighted Fair Queuing and Other Priority Queuing	1/15/2004	14895/0169
11	11/234,121	GV143	Method and System for Generating Colored Comfort Noise in the Absence of Silence Insertion Description Packets	9/26/2005	Not yet Recorded in the USPTO
12	10/063,005	GV149	Clock Skew Compensation for a Jitter Buffer	3/11/2002	12464/0190
13	09/683,922	GV150	A Method of Connecting a PPP Client to a PPPoE Access Concentrator Via a Bridge	3/1/2002	12823/0693
14	10/064,340	GV153	Communications System Using Rings Architecture	7/2/2002	13425/0140
15	10/230,054	GV160	Process and Algorithm for Secure Object Manipulation	8/29/2002	13611/0059

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16	10/064,335	GV172	Comunications System Using Rings Architecture	7/2/2002	13425/0127
17	10/735,678	GV181	Scheduling Thread Execution		Not yet Recorded in the USPTO
18	10/183,421	GV199	Estimating Salz SNR for G.SHDSL Data Rates Using Line Probe	6/28/2002	13381/0986
19	10/340,635	GV203	Integrated PON Processor	1/13/2003	13665/0085
20	10/614,338	GV204	method and system for allocating bandwidth	7/8/2003	14610/0799
21	10/064,445	gv207	Improved synchronous data access	7/15/2002	Not yet Recorded in the USPTO
22	10/307,296	GV209	Method and System for Intertask Messaging between Multiple Processors	12/2/2002	13540/0731
23	10/340,651	GV210	System and Method for Improved Data Protection in PONs	1/13/2003	13664/0912
24	10/340,606	gv211	System and Method for Dynamic Bandwidth Allocation in PONs	1/13/2003	13664/0838
25	10/642,309	GV216	Operating System for Executing Computer Software Applications	8/18/2003	Not yet Recorded in the USPTO
26	10/614,337	GV217	Method and System for Prioritizing UTOPIA CLAV Status Polling	7/8/2003	14641/0785
27	10/615,613	GV218	Method and System for Optimizing UTOPIA CLAV Polling Arbitration	7/8/2003	15219/0526
28	10/614,339	GV219	Method and System for Optimizing UTOPIA CLAV Polling Arbitration	7/8/2003	Not yet Recorded in the USPTO
29	10/614,220	GV220	A Method for the Generation of Pseudo Random Numbers	7/8/2003	15581/0521
30	10/064,226	gv221	Method and Apparatus for PPP auto-connect	6/21/2002	13259/0531
31	10/430,278	GV222	Method and system for preventing data loss in a VoIP system	5/7/2003	14379/0222
32	10/746,235	GV224	Providing Quality of Service in Asynchronous Transfer Mode Cell Transmission		15432/0228
33	10/250,236	GV229	Apply transmit windowing for PSD in ADSL+ networks	6/16/2003	14322/0958
34	10/614,109	GV231	Packet Transmission from Fragmented Buffer	7/8/2003	14273/0822

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35	10/614,374	GV232	Providing Network Timing Recovery	7/8/2003	15579/0905
36	10/614,219	GV233	Interleaving SDRAM Device Access Requests	7/8/2003	15581/0501
37	10/626,714	GV234	DBMsOL and FBMsOL Power Spectral Density Masks	7/25/2003	14801/0126
38	10/626,727	GV235	Reduced SNR Handshake Signaling in ADSL Systems	7/25/2003	14802/0271
39	10/626,771	GV236	Reduced Symbol Rate Handshake Signaling in ADSL Systems	7/25/2003	15346/0394
40	10/626,770	GV237	Power Spectral Density Masks for ADSL+	7/25/2003	14684/0138
41	10/263,506	GV246	Fractional local peak detection & mitigation PAR reduction	10/4/2002	14038/0734
42	10/263,732	GV247	STPI PAR reduction	10/4/2002	13594/0402
43	10/714,907	GV256	Selectable Mask for LDSL		15125/0990
44	10/377,514	GV257	Zero-Installation PPP-Bridge (ZIPB) Setup for LAN-to-WAN Connectivity	3/3/2003	14076/0547
45	10/393,345	GV258	Adaptive RFI Canceller for xDSL	3/21/2003	14195/0874 18042/0403
46	10/644,023	GV263	Method and apparatus for generating a 64 state 4-D trellis code in DMT	8/20/2003	Not yet Recorded in the USPTO
47	10/672,078	GV265	Reducing Interferences Due to Handshake Tones	9/29/2003	15060/0677
48	10/672,079	GV266	Reducing Interferences due to handshake tones	9/29/2003	15059/0804
49	10/705,909	GV272	Attaching a USB network adapter supporting both RNDIS and non-RNDIS for capable operating systems		15458/0615
50	10/714,867	GV273	Smart DSL Systems for LDSL		15472/0688
51	10/408,364	GV274	Reduced Complexity Time-Frequency Equalizer for Discrete Multi-Tone Based DSL Systems	4/8/2003	14219/0111
52	10/618,678	GV275	Channel Equalization and Cyclostationary Interference Rejection for ADSL-DMT Modems	7/15/2003	14284/0549
53	10/874,329	GV276	Technique for Improving Multi-Channel Multi-Tone Transmissions	6/24/2004	15847/0507
54	10/849,569	GV277	Fourier Transform Side Lobe Mitigation	5/20/2004	15803/0667
55	10/860,286	GV279	Multilevel Channel Coding in ADSL	6/4/2004	15853/0901

No.	Serial No	Conexant No.	Application Title	Filing Date	Assignment (Reel/Frame)
56	10/702,456	GV280	ATM HEADER COMPRESSION USING HASH TABLES	11/7/2003	14678/0361
57	11/032,203	GV281	Systems and Methods for Achieving Improved ADSL Data Rates Over USB 1.1 Channel	1/10/2005	16165/0967
58	10/714,660	GV283	Enhanced Smart DSL Systems for LDSL		15258/0198
59	10/714,661	GV284	Enhanced Smart DSL for LDSL		15471/0367
60	10/714,655	GV285	Power Spectral Density Masks for Improved Spectral Compatibility		15200/0837
61	10/952,435	GV295	Canceling Radio Frequency Interferers (RFI) in xDSL Signals	9/29/2004	17520/0839
62	10/970,718	GV302	Hierarchical Trellis Coded Modulation		16193/0890
63	11/035,422	GV307	Single End Loop Testing for DSL Provisioning and Maintenance	1/14/2005	16425/0124
64	10/721,259	GV310	Selecting an Optimal Asymmetric Digital Subscriber Line Mode		14744/0276
65	10/824,611	GV312	Techniques for Dynamic Bin Allocation	4/15/2004	Not yet Recorded in the USPTO
66	10/996,054	GV315	Optimizing Bit Rate in a DMT Quad System		15816/0781
67	11/031,020	GV324	Real-Time Formation of Optimal Power Spectral Density Masks	1/10/2005	Not yet Recorded in the USPTO
68	10/808,549	GV330	MIMO Dynamic PSD Allocation for DSL Networks	3/25/2004	15565/0197
69	11/320,918	GV411	Time-Domain Equalizer for DMT-Based VDSL Systems with Cyclic Extension in Training Signals		17426/0490
70	11/224,328	GV417	Multistage Signal Detection in MIMO Transmissions and Iterative Detection of Precoded OFDM	9/13/2005	17282/0843
71	11/248,224	GV419	Method and System for Turbo Trellis Coded Modulation Scheme for Communication Systems		Not yet Recorded in the USPTO
72	11/282,109	GV420	Method and System for Adaptive VDSL System with Variable Sampling Frequency and Time-Domain Equalizer		17252/0040
73	11/197,524	GV422	System and Method for Echo Cancellation	8/5/2005	17007/0806

No.	Serial No	Conexant No.	Application Title	Filing Date	Assignment (Reel/Frame)
74	11/297,634	GV424	M&S for Dynamic Interleaver Adaptation Scheme	12/9/2005	17723/0057 17699/0904

75	11/297,632	GV424	Method and System for Dynamic Interleaver Adaptation Scheme in VDSL	12/9/2005	17699/0904 17723/0057
76	11/009,710	GV425	Method and System for Virtual Exchange Reference Impact (VERI) for Use in Mixed Spectrum Management in DSL		16366/0657